UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
ZHAO, DAQUAN

ART UNIT	PAPER NUMBER
2621	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.
10/614,184</td><td>Applicant(s)
SEO ET AL.</td><td></td></tr>
<tr><td>Examiner
DAQUAN ZHAO</td><td>Art Unit
2621</td><td></td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 September 2009*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5,15,22 and 36-50* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 5, 15, 22 and 36-50* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

9/21/2009 has been entered.

Response to Arguments

2.   Applicant's arguments with respect to claims 1, 5, 15, 22, 36-50 have been

considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

Claims 1, 5 15 and 22 rejected under 35 U.S.C. 101 because claims are directed

to nonstatutory subject matter.

"In the start of the art, transitory signals are commonplace as a medium for

transmitting computer instruction and thus, in the absence of any evidence to the

contrary and give the broadest reasonable interpretation, the scope of a "recording

medium' covers a signal per se." In order to overcome the 35 U.S.C. 101 rejection, the

"recording medium" should be changed to "non-transitory recording medium".

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims1, 5, 15, 22, 36-50 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Takao (US 7,000,246 B1), in view of Kikuchi et al (US 5,870, 523), in

view of Shimoji et al (US 2004/0,088,739 A1) and further in view of Kim et al (US

7,020,384).

Regarding claim 1, Takao teaches a recording medium having a data structure

for managing reproduction of video data recorded on the recording medium, comprising:

at least one navigation area storing navigation management information for managing

real-time reproduction path video data recorded on the recording medium (e.g. column

10, lines 54-67, video data are reproduced in accordance with the navigation data); and

wherein said navigation management information includes at least one navigation unit

comprising a plurality of video data packets and a plurality of real-time navigation

packets (e.g. figure 29, column 21, lines 60-64, wherein NVT1 and NVT2 correspond to

plurality of real-time navigation packets, ES(V) 11 and ES(V)12 correspond to plurality

of video data packets. The area of recording medium from the beginning of the first SIT

to the beginning of the next SIT corresponds to the navigation management information area).

However, Takao fails to teach a) multiple reproduction path video data, the real-time navigation data including a plurality of real-time playback information and an indication information for indicating the number of real-time playback information within the navigation units, and b) wherein the plurality of real-time navigation packets comprises a real-time navigation table, the real-time navigation table including real-time navigation data, and each real-time navigation packet has a same packet identification code that is different from that of each of said plurality of video packets

Kikuchi et al teach multiple reproduction path video data (figure 34, column 20, lines 35-65, Angles change is corresponds to multiple reproduction path), the real-time navigation data including a plurality of real-time playback information and an indication information for indicating the number of real-time playback information within the navigation units (e.g. figures 27-29, column 19, lines 5-18, the angle cells corresponds to plurality of real-time playback information and the Cell number corresponds to "indicating the number of real-time playback information, the NSLS-ANGLI is in the PCI as shown in figures 27-28 and the PCI is within the navigation packet as shown in figure 25). Using only the information on the transfer start time and playback start time makes it difficult to achieve a special playback (e.g. Kikuchi et al, column 1,lines 40-50). It would obvious to one ordinary skill in the art at the time the invention was made to have incorporated the angle information taught by Kikuchi et al into the teaching of Takao for easy special playback because the system can retrieve the cell for special playback

efficiently and easily by referring back to the angle information as taught by Kikuchi et al.

Takao and Kikuchi et al fail to teach wherein the plurality of real-time navigation packets comprises a real-time navigation table, and each real-time navigation packet has a same packet identification code that is different from that of each of said plurality of video packets; Shimoji et al teach wherein the plurality of real-time navigation packets comprises a real-time navigation table, and each real-time navigation packet has a same packet identification code that is different from that of each of said plurality of video packets (e.g. figure 28 A, paragraphs [0334], [0336], PIDs 0x0092 corresponds to the same packet identification code. "7405" corresponds to the navigation table which contains plurality tables, the video data packet has PID 0x0096, which is different from the PID of the navigation table). It would have been obvious for one ordinary skill in the art at the time the invention was made to incorporate the teaching of Shimoji et al into the teaching of Takao and Kikuchi et al for user easily to organize the broadcasting information since Shimoji et al suggest in paragraph [0005] to all user to interactively select image information accordance with the content of the image information received.

Takao, Kikuchi et al and Shimoji et al fail to teach the real time navigation packets are transport packets. Kim et al teach the real time navigation packets are transport packets (e.g. abstract, figure 8, claim 1 of Kim et al). It would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate the teaching of Kim et al into the teaching of Takao, Kikuchi et al and Shimoji et al to

increase the space for program data by not recording time information in every transport

packet (e.g. column 3, lines 14-25 of Kim et al).

Regarding claim 36 is rejected for the same reasons as discussed in claim 1

above with further limitations. Takao teaches a method of recording a data structure for

managing reproduction of real-time navigation video data on a recording medium

comprising: recording navigation management information for managing real-time

navigation video data in at least one navigation area of the recording medium (see

discussion of claim 1 above); and recording at least one navigation unit having a

plurality of video packets and real-time navigation packets (see discussion of claim 1

above), each of said plurality of real-time navigation packets having a package

identification number different from each of said plurality of video packets (e.g. figure 9,

column 4, lines 32-40, NVT1 and NVT2 has different ID from the video packets).

Claim 37 is rejected for the same reasons as discussed in claim 36 above.

Regarding claim 38, Takao teaches recording a data structure for managing

reproduction of real-time navigation video data on a recording medium comprising:

recording navigation management information for managing real-time navigation video

data in at least one navigation area of the recording medium (see discussion of claim 1

above); and recording at least one navigation unit having a plurality of video packets

and real-time navigation packets (see discussion of claim 1 above), each of said

plurality of real-time navigation packets having a package identification number different

from each of said plurality of video packets (e.g. figure 9, column 4, lines 32-40). Takao

fails to teach a driver for driving an optical recording device to record data on the

recording medium; a coder for encoding video data; and a controller for controlling the driver to record the encoded video data on a recording medium, the controller for controlling the driver to navigation information. Kikuchi et al teach a driver for driving an optical recording device to record data on the recording medium (e.g. figure 1, DISK DRIVE SECTION 30); a coder for encoding video data (e.g. figure 1, Video Encoder Section 58); and a controller for controlling the driver to record the encoded video data on a recording medium, the controller for controlling the driver to navigation information (e.g. figure 1, system CPU). It would have been obvious for one ordinary skill in the art at the time the invention was made to have utilized the recording/reproducing apparatus disclosed by Kikuchi et al to record or reproduce the data structure, taught by Takao, for easy special playback (Kikuchi et al, column 1, lines 40-44).

Claims 39 and 45 are rejected for the same reasons as discussed in claim 38 above.

Regarding claim 5, Takao teaches each said plurality of real-time navigation packets are sequentially recorded in the at least one navigation unit, with a fixed number (e.g. figure 29 shows NVT1 is recorded followed by NVT2, the fixed number of navigation is 2, NVT1 and NVT2).

Regarding claim 15, Takao teaches plurality of real-time navigation packets are discontinuously recorded in the navigation unit (e.g. figure 29 shows two sets of NTV1 and NTV2 are discontinuously recorded and the number of ES is vary, for example, there are six unit of ES shown in figure 29 and there are only four ES units shown in figure 31).

Regarding claims 22 and 46, Kikuchi et teach aligning with at least one physical unit of the recording medium, the physical recording unit having a predetermined size (e.g. column 10, lines 20-25 and the sector contains 2048 bytes, which is a predetermined size).

For claim 40, Kikuchi et al teach aligning with at least one physical unit of the recording medium (e.g. column 10, lines 20-25 and the sector contains 2048 bytes, which is a predetermined size), wherein the controller is configured to control the driver to read the real-time navigation packets (e.g. figure 1, system CPU).

Regarding claims 41, 42, 43 and 44, Kikuchi et al teach the multiple reproduction paths video data includes different versions of a title (e.g. column 20, lines 35-65, different angle corresponds to "different versions of a title).

For claim 47, Kikuchi et al teaches the controller is configured to analyze the real-time navigation data to reproduce the real-time navigation video data (e.g. figure 37A, step S20-S23 shows the step of the system reproducing the video data according to the navigation data).

For claim 48, Kikuchi et al teach a demultiplexer configured to separate the real-time navigation packets from the video packets, by using the same packet identification number (e.g. figure 1, column 25, lines 30-52, the system cpu separate the navigation packet, wherein the "start address corresponds to the "same packet identification number, the system CPU corresponds to the demultiplexer).

For claim 49, Kikuchi et al teach a decoder configured to decode the encoded video data, demultiplexed by the demultiplexer (e.g. column 25, lines 30-52, the video is distributed to the video decoder by the system CPU).

For claim 50, the controller is further configured to receive a user input for designating a specific path video data (e.g. column 11, lines 56-57, user can specify an angle).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daquan Zhao whose telephone number is (571) 270-1119. The examiner can normally be reached on M-Fri. 7:30 -5, alt Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Thai Q, can be reached on (571)272-7382. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the

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published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daquan Zhao/

Examiner, Art Unit 2621

/Thai Tran/

Supervisory Patent Examiner, Art Unit 2621